Complete Summary

GUIDELINE TITLE

Improving outcomes for people with skin tumours including melanoma.

BIBLIOGRAPHIC SOURCE(S)

National Collaborating Centre for Cancer. Guidance on cancer services: improving outcomes for people with skin tumours including melanoma. London (UK): National Institute for Health and Clinical Excellence (NICE); 2006 Feb. 174 p. [32 references]

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Skin tumours including precancerous lesions, basal cell carcinoma, squamous cell carcinoma, malignant melanoma, primary cutaneous lymphomas, and other rare primary tumours

GUIDELINE CATEGORY

Counseling
Diagnosis
Evaluation
Management
Treatment

CLINICAL SPECIALTY

Dermatology
Family Practice
Internal Medicine
Oncology
Pathology
Pediatrics
Psychology
Radiation Oncology

INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Health Care Providers
Hospitals
Nurses
Pathology Assistants
Patients
Physicians
Psychologists/Non-physician Behavioral Health Clinicians

GUIDELINE OBJECTIVE(S)

- To provide guidance on the organization of services for skin tumours for use by the National Health Service (NHS) in England and Wales
- To formalise and standardise the ways in which patients with the most common skin tumours and precancerous conditions are managed and in which health professionals in primary care are involved in their care
- To support current national initiatives outlined in the *NHS Cancer Plan*, the Calman-Hine Report, the Cameron Report, the "Manual of Cancer Service Standards for England" and the "All Wales Minimum Standards for Cancer Services"

TARGET POPULATION

- Adults with malignant tumours of the skin (basal cell carcinoma, squamous cell carcinoma, malignant melanoma and other rare primary tumours)
- Adults with primary cutaneous lymphomas
- Adults with skin tumours arising in immuno-compromised patients
- Children and young people in their late teens and early twenties presenting with skin tumours typical of the adult group, whose management does not generally require specialist paediatric oncology services
- Adults and children with precancerous skin lesions such as actinic keratoses, Bowen's and lentigo maligna, including the specific needs of people with genetic disorders

Groups that are **not** covered include:

- Adults and children with benign skin tumours
- Adults and children with cutaneous metastases from tumours at other primary sites

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis/Evaluation

1. Patient history and examination
2. Dermatoscopy
3. Biopsy
4. Histopathological examination of excised skin specimens

Management/Treatment

1. Patient-centred care
2. Open communication
3. Rapid referral to a specialist
4. Moh's surgery
5. Chemotherapy
6. Sentinel node biopsy
7. Surgery
8. Carbon dioxide laser therapy
9. Radiotherapy
10. Medical photography surveillance
11. Patient follow up
    - Surveillance (self and community physician/clinic)
    - Positron emission tomography
12. Patient education
13. Psychosocial, psychological and psychiatric support
14. Lymphoedema services
15. Participation in clinical trials
16. Management of special groups
    - Uncommon risk factors, rare cancers
    - Genetic predisposition
    - Transplant patients
    - Cutaneous lymphoma
    - Skin sarcomas
    - Children and young people

Organization of Skin Cancer Services

1. Cancer networks
2. Delivery of care by a multidisciplinary team
    - Local hospital skin cancer multidisciplinary teams (LSMDTs)
    - Specialist skin cancer multidisciplinary teams (SSMDTs)
3. Audit/appraisal of the quality of service provision
4. Network-wide protocols

Continuity of care in treatment centers and community

MAJOR OUTCOMES CONSIDERED

- Patient satisfaction
- Diagnostic accuracy

- Survival
- Recurrence rate
- Morbidity and mortality
- Side effects and complications of treatment
- Quality of life

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Sources of Evidence

Systematic search strategies were constructed by the Information Specialist to identify published evidence for 62 research questions set by the Guideline Development Group (GDG).

In order to identify evidence relevant to the research questions set by the GDG, literature searches were undertaken of electronic databases of published studies. The following databases were accessed via the Health of Wales Information Service e-Library: Medline, Embase, EBM Reviews/Cochrane Library, Cinahl, BNI, Psychoinfo, AMED, HMIC, and ASSIA for Health. The search period ended at the end of 2005.

Studies were selected for critical appraisal according to the hierarchy of evidence, (Scottish Intercollegiate Guidelines Network, 2002; National Institute for Health and Clinical Excellence 2005) relevance to the research questions and applicability to service provision within the NHS in England and Wales.

Identified titles and abstracts were initially screened for evidence to the clinical question by the Information Specialist and thereafter by the Researcher. Definite inclusion/exclusion criteria were not employed for articles, because of the nature and variability of the literature on service delivery. Only articles in English were selected for critical appraisal. In some instances help from a member of the GDG was enlisted to verify the relevance of selected articles and as a supplementary check on the completeness of the search. In general no formal contact was made with the authors for each paper identified, but occasionally communication was made for clarification of specific points.

The GDG identified areas where there was a requirement for expert input. These areas were addressed by the production of a position paper by a recognized expert. The papers that made a substantial contribution to the evidence are:

- Living with Skin Cancer, A Reflection on NHS Services
- Management of In-Transit Metastatic Melanoma

- Immunology and Immunotherapy for Skin Cancer, Main Classes – Non-melanoma Malignancy – squamous cell carcinoma (SCC), basal cell carcinoma (BCC) and Melanoma
- Systematic Treatment of Melanoma
- A Consideration of Conventional Surgery and Conventional Histopathological Assessment and Mohs Micrographic Surgery in the Treatment of Basal Cell Carcinoma and Squamous Cell Carcinoma of the Skin
- Organisation of Services for the Diagnosis and Management of Cutaneous Lymphoma

Key strategic documents pertinent to skin cancer were also identified as sources of evidence. Relevant national and international guidelines were accepted as sources of evidence and were appraised for quality using the Appraisal of Guidelines Research and Evaluation tool (AGREE).

Economic evidence was extracted from the evidence tables and was supplemented with searches performed by the Centre for the Economics of Health, University of Wales, Bangor. This evidence informed the Health Economics Report, *Improving Outcomes for People with Skin Tumours including Melanoma: Analysis of the Potential Economic Impact of the Guidance*. (See the "Availability of Companion Documents" field in this summary.)

One complementary piece of research was commissioned to elicit the views of patients with skin cancer treated in England and Wales prior to the dissemination of this guidance. A questionnaire survey titled, "The skin cancer patient experience – a report for the NICE skin tumors service guidance" was designed and administered by the GDG and the National Collaborating Centre for Cancer. Data from this study are included in evidence table form in Chapter 2 of *Improving Outcomes for People with Skin Tumours including Melanoma: Evidence Review*, titled "Patient Centred Care" with a full report provided in Appendix B. (See the "Availability of Companion Documents" field in this summary.)

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

1++ High quality meta-analyses, systematic review of randomised controlled trials (RCTs), or RCTs with a very low risk of bias

1+ Well conducted meta-analyses, systematic reviews of RCTs, or RCTs with a low risk of bias

1- Meta-analyses, systematic review of RCTs, or RCTs with a high risk of bias*

2++ High quality systematic reviews of case-control or cohort studies. High quality case-control or cohort studies with a very low risk of confounding, bias, or chance and a high probability that the relationship is causal

2+ Well conducted case-control or cohort studies with a low risk of confounding, bias, or chance and a moderate probability that the relationship is causal

2- Case-control or cohort studies with a high risk of confounding, bias, or chance and a significant risk that the relationship is not causal*

3 Non-analytic studies (for example, case reports, case series)

4 Expert opinion, formal consensus

*Studies with a level of evidence "-"should not be used as a basis for making a recommendation.

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Critical Appraisal

The identified studies were critically appraised and graded for quality using the methodology from the *National Institute for Health and Clinical Excellence (NICE) Guidelines Development Methods* 2005 and the information relevant to the questions was entered into the evidence table(s). (See "Availability of Companion Documents" field in this summary.) The evidence grade appended to each study in the evidence table reflects both the study design (e.g. randomised controlled trial, cross sectional study) and also a judgment of the study methods applied, accepting the study design (i.e. good, fair, poor).

Where available, evidence from good quality systematic reviews was appraised and included in the evidence tables.

Critical appraisal and data extraction were undertaken by a single Researcher. All tables were circulated to the Guidance Development Group (GDG) members for comments. References were also supplied by the GDG members and some stakeholder evidence was used. Both sources were always appraised for quality.

Synthesizing Evidence

As a general comment, evidence quality for many of the research questions is poor. There were very few RCTs relevant to the majority of the clinical questions. This is a widely acknowledged problem with health service research and every effort was made to maximise the retrieval of relevant high quality literature.

Where available, evidence from good quality systematic reviews was appraised and included in the evidence tables; not all studies in the reviews were individually appraised.

The evidence tables recommended for use in the NICE methodology manual were modified to accept the type of studies identified for service guidance. In addition to the evidence tables a brief evidence summary is provided with each table titled, Summary of the supporting evidence for the recommendations, as well as a bullet list of each contributing study. Each evidence table relates to a single search strategy and the relevant research questions are included at the beginning of each section and also at the top of each evidence table.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Informal Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Drafting Recommendations

The Guidance Development Group (GDG) members were allocated specific topic areas and asked to review the evidence tables pertaining to the topic and draft recommendations for the service guidance.

Agreeing Recommendations

Once an early draft of the guidance was produced, the GDG members were asked to review the draft document and consider whether:

- There appeared to be any major gaps in the synthesized evidence
- The recommendations were justified from the evidence presented and whether they were sufficiently practical and precise so that health service commissioners and the relevant front line healthcare professionals could implement them.

During the development of this guidance, no formal consensus methods were used. Consensus was achieved by informal means during GDG meetings and correspondence outside the meetings.

Writing of the Guidance

The first formal draft version of the guidance was coordinated by the Chair and Clinical Lead of the GDG in accordance with the decisions of the GDG.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

Potential Economic Impact of the Guidance

Executive Summary

The economic consequences of the recommendations are set out in the document *Improving Outcomes for People with Skin Tumours Including Melanoma, Analysis of the Potential Economic Impact of the Guidance*. The analysis focuses on those aspects of the key recommendations that are likely to be of greatest consequence in terms of cost, the most significant of which will be in respect of additional staffing.

There is uncertainty around the estimates presented and there will be variation between cancer networks. Sensitivity analyses were conducted to account for uncertainty in the estimated costs. Further assessments will be needed at cancer network level and/or National Health Service (NHS) trust level to determine the exact cost implications. Work is currently being carried out in the NHS in England, in connection with "Payment by Results," to develop a better understanding of costs of treatment and care, and this may help these assessments in the future.

For further details of the potential economic impact of the guidance, see Table 1 and Table 2 in *Improving Outcomes for People with Skin Tumours Including Melanoma, Analysis of the Potential Economic Impact of the Guidance* (see the "Availability of Companion Documents" field in this summary).

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The guideline was validated through two consultations.

1. The first draft of the guideline was consulted with Stakeholders and comments were considered by the Guideline Development Group (GDG)
2. The final consultation draft of the Full guideline, evidence review, the economic analysis, the needs assessment, and the Information for the Public were submitted to stakeholders for final comments.

The final draft was submitted to the Guideline Review Panel for review prior to publication.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Patterns of Service Provision

It is recommended that the Royal College of Pathologists minimum dataset is implemented in order to enhance the quality of cancer registration.

It is recommended that at least two cancer registries should receive additional funding to undertake full registration of skin cancers, including the registration of basal cell carcinomas (BCCs). Ideally this should include the registries covering the areas with the highest and lowest incidence of skin cancer.

Commissioners should implement the recommendations on skin cancer prevention outlined in the Health Development Agency document titled *Cancer Prevention: A Resource to Support Local Action in Delivering The NHS Cancer Plan*.

Patient-Centred Care

Putting Patient and Carer Needs at the Centre of Service Design

Cancer networks, through their site-specific groups and lead commissioners, should describe the demographic profile of the skin cancer patients in their area in order to ensure that their needs are adequately met. In particular they should consider the impact of affluence and poverty on stage at presentation and ensure access to the entire range of services from prevention through to palliation.

Commissioners should develop an understanding of the spectrum of needs of service users through consultation arrangements and ensure that individuals from the local community have the facility and the confidence to raise and express concerns.

Commissioners, together with their cancer network site-specific groups, should take into consideration the diversity of patients' needs when configuring services and developing network protocols.

Communication, Information Provision and Support

Those who are directly involved in treating patients should receive specific training in communication and breaking bad news. They have a responsibility for good communication with patients and carers, including discussion of the risks and benefits in deciding about treatment options and involving patients as partners in care and treatment.

Each local hospital skin cancer multidisciplinary team (LSMDT) and specialist skin cancer multidisciplinary team (SSMDT) should have at least one skin cancer clinical nurse specialist (CNS) who will play a leading role in supporting patients and carers. There should be equity of access to information and support regardless of where the care is delivered.

All LSMDTs and SSMDTs should have access to psychological support services for skin cancer patients.

Patients should be invited to bring a companion with them to consultations.

A checklist may be used by healthcare professionals to remind them to give patients and carers the information they need in an appropriate format for prediagnosis, diagnosis, treatment, follow-up or palliative care. This may also include a copy of the letter confirming the diagnosis and treatment plan sent by

the consultant to the general practitioner (GP). In addition, there should be an assessment at these key stages to ensure that all other needs are met (for example, rehabilitation, psychological needs and occupational therapy).

Improved, preferably nationally standardised, written information should be made available to all patients. Information should be appropriate to the patients' needs at that point in their diagnosis and treatment, and should be repeated over time. The information given must be specific to the histopathological type of lesion, type of treatment, local services and any choice within them, and should cover both physical and psychosocial issues. The information should detail local services, including names of key personnel and contact details. The information given should be recorded in the patient notes. It is envisaged that much of this communication will be undertaken by skin cancer CNSs.

As there is a significant risk of developing further disease (that is, those patients who have had one type of skin cancer may develop a new and different lesion), all patients with cancerous or precancerous lesions should be given advice on prevention and recognition of signs and symptoms of suspicious skin lesions and on how to re-access the service. This may need to be an iterative process.

Information could be provided in the form of a hand-held record, containing information leaflets appropriate to the patient's needs and including local information on access to services and information about relevant local and national support groups. This would be particularly useful for more aggressive tumours such as malignant melanoma (MM) or invasive squamous cell carcinoma (SCC), which require multidisciplinary team support. This can serve as a record of treatment, including the patients' experiences and questions they wish to raise with the clinical team.

Patients should also, if appropriate, be given other information to take home in the most suitable format (e.g. audiotapes of consultations, copies of letters between clinicians and the patient, video or specialised material for people with learning disabilities) with adjustments made for different sociocultural contexts.

When a diagnosis of MM or SCC is given, the patient's GP should be informed of this result within 24 hours of the patient being told, regardless of where the diagnosis took place. This should ensure that patients are provided with the appropriate information and support. Patients with a basal cell carcinoma (BCC) or precancerous lesion are not covered by this standard, although it is desirable.

Support for Patients Needing Extensive Treatment

All patients with skin cancer, but especially those with MM and advanced disease or those undergoing potentially disfiguring surgery, should be assessed and have access to, as appropriate, psychosocial, psychological and psychiatric interventions. Research indicates that the severity of a disfigurement does not correlate with the amount of distress it causes. Therefore it is important that services are configured in such a way that people with minor disfigurements are also made aware of the support and interventions available. They should also have access to other suitably trained counsellors and specialist services as appropriate, including those who can teach coping skills, give camouflage advice,

provide occupational therapy and help with any preparation necessary for reconstructive surgery.

Rarely, patients with skin cancer may also develop lymphoedema following their treatment, and should have access to lymphoedema services if necessary.

Skin cancer CNSs should receive training in identifying and responding to the needs of patients undergoing disfiguring treatment, particularly with respect to coping skills, and in the identification of the need for psychological/psychiatric support.

All cancer networks should ensure that skin cancer patients have access to palliative care advice and support when needed.

Research

All patients, including those younger than 19 years of age, should be given the opportunity, if appropriate, to take part in clinical trials.

Quality Assurance

Surveys of patients' experiences should be a routine part of the quality assurance process of skin cancer services. These should be combined with more specific audits of aspects of care that may directly impact on patients' well-being. The results of these should be reviewed as part of multidisciplinary team (MDT) working.

Organisation of Skin Cancer Services

Cancer Networks

All patients with skin cancer, and their carers, should be offered the same quality of treatment, information and support regardless of where the diagnosis is made and treatment is carried out, and regardless of the grade or type of doctor they see.

All doctors and nurses knowingly treating patients with skin cancer should be members of one of the MDTs described in this section.

All cancer networks should, through their skin cancer site-specific network group, establish two levels of MDT for the management of patients with skin cancer, both of which will also provide MDT support for clinicians working in the community:

- LSMDTs
- SSMDTs

Commissioners should ensure that adequate resources are made available in order that skin cancer teams can work in accordance with this guidance, and have staff to undertake prospective data collection and audit.

All hospital doctors who treat patients with skin cancer should be active members of a skin cancer MDT and attend more than 50% of the total meetings annually.

Doctors who knowingly treat skin cancer patients in the community should be members of an LSMDT/SSMDT. As they will be treating only those patients with low-risk BCC and precancerous skin lesions (see section on "Clinicians Working in the Community"), they will not have the same requirement for attendance at an MDT as other members, but would be expected to attend at least four meetings a year, one of which should be an audit meeting. They would also be expected to attend if one of their patients is to be discussed.

For consultants, the clinical and managerial work related to skin cancer service delivery should be incorporated into their job plans.

The 2-week waiting time standard and other national waiting time standards should apply in every setting within the system where care is delivered, and not only to hospital-based care (see definitions in "Patient-Centred Care" above).

Network Implementation

Substantial changes in working practices and new resources may be required to create the service described in this guidance. Each cancer network should undertake an audit/appraisal of the quality of their current service provision and then decide how to establish the teams, which are central to the recommendations.

Network-wide Protocols

Documented clinical protocols for referral and treatment should be agreed between the lead clinician of the LSMDT and SSMDT, ratified by the skin cancer site-specific network group and signed off by the lead clinician of the cancer network. Effective systems will be required to ensure rapid communication and efficient coordination between teams. This guidance and other national clinical guidelines should be used in the development of local protocols and guidelines at the cancer network level.

Arrangements for Skin Cancer Teams

LSMDTs should be established in cancer units at district general hospitals and link with all those engaged in skin cancer care in the community and primary care.

SSMDTs should be based in larger hospitals, usually cancer centres, plastic surgery centres or other specialist tertiary services of relevance to skin cancer. These teams can also serve as the LSMDT for the local population. The teams should include appropriate non-surgical oncology support.

Patients should be referred for review from LSMDT to SSMDT according to the complexity of their disease (see Table below, titled "Patients for review by SSMDTs"). There should be flexibility in these arrangements to allow for local circumstances, including the management, by other specialist cancer MDTs, of patients with skin cancers of either specific types or specific anatomical location.

Where this occurs, the cases need only be included in the discussion at one MDT but data on all skin cancers should be brought together in a single audit. For some rare skin cancers and sites, such as vulval melanoma, it may be appropriate that more than one MDT is involved in the treatment decisions.

Table. Patients for Review by SSMDTs

- Patients referred from the LSMDT
- Patients with high-risk SCCs that pose difficulty in management
- Patients with MM managed by other site specialist teams (e.g. gynaecological, mucosal and head and neck [excluding ocular])
- Patients newly diagnosed with MM stage 2B or higher (American Joint Committee on Cancer [AJCC] staging system)
- Patients with MM stage 1 or above who are eligible for clinical trials that have been approved at cancer network level
- Patients with multiple MM
- Children younger than 19 years with MM
- Any patient with metastatic MM or SCC diagnosed at presentation or on follow-up
- Patients with giant congenital naevi where there is suspicion of malignant transformation
- Patients with BCCs that are metastatic
- Patients with malignant skin lesions of uncertain pathological diagnosis
- Patients with rare skin cancers, including lymphoma and sarcoma (see section below titled "Management of special groups")
- For periodic review, patients developing skin cancers who are immunocompromised, have Gorlin's syndrome or other genetic predisposition syndromes (see section below titled "Management of special groups")
- Patients needing nodal dissection including sentinel lymph node biopsy (SNB) – these patients should be seen and referred by the LSMDT
- Patients who may benefit from radiotherapy, if not available at the LSMDT
- Patients who may be eligible for entry into clinical trials
- Patients who require adjuvant treatment (where this is shown to be beneficial)

Coordination Across Teams

It is important that the transfer of care of patients between teams is as flexible, comprehensive and timely as possible to avoid undue delays and ensure continuity of care. Close coordination is required between clinicians working in the community, LSMDTs, SSMDTs, palliative care teams and patients, carers and their families. There should be a designated individual in each team who has responsibility for communication and information provision, and adequate support must also be provided to ensure that all discussions about patient management are recorded.

Clearly defined arrangements should be made to ensure that appropriate information (including the name of the doctor and CNS who are directly responsible for each patient) is communicated properly to each patient and others (such as GPs) who may require, or may benefit from, information about decisions concerning particular patients. GPs should be given sufficient information about

each patient's cancer and his or her management to enable them to advise and support patients and their carers.

There should be clear and documented arrangements for cross-cover in all teams and all members should meet the MDT attendance criterion. This commitment should be formally acknowledged in the consultant contract as programmed activity (PA).

It is recognised that a period of transition will be required before the new pattern of service provision is established.

Patient Information

Trusts should provide information to patients, as outlined in the "Patient-Centred Care" section above. If patient support groups or user involvement groups exist, then information on these should also be provided for patients. Information should contain details of the patient's specific condition and treatment, relevant MDTs, contact names and phone numbers, clinical appointments and a diary in which patients can record symptoms and other potentially useful information about their condition if appropriate. This will be of value both for the patient's own use and to other healthcare professionals required to care for the patient out of normal working hours.

The Local Hospital Skin Cancer Multidisciplinary Team (LSMDT)

The LSMDTs should serve populations in excess of 200,000. Core teams should include, at a minimum, the members specified in this section. All members of each team should have a particular interest in skin cancer and these designated individuals should provide treatment. Review at an MDT meeting is only necessary for those patients to whose management it may make a difference. This may be when there are treatment choices, when management is challenging and would benefit from the input of several professionals, or when the diagnosis is difficult. The cases for LSMDT review are listed in the table below "Patients to be referred for LSMDT review".

Table. Patients to Be Referred for LSMDT Review

- All patients with SCCs or high-risk BCCs that involve the excision margins or are recurrent
- All patients with MM – primary, recurrent and metastatic
- Patients suitable for Mohs surgery
- Patients with skin lesions of uncertain but possible malignant nature
- Cases for nodal dissection including sentinel node biopsy (SNB)
- Immunocompromised patients with skin cancers and patients who have Gorlin's syndrome or other genetic conditions in which predisposition occurs
- Patients with rare skin cancers (see Appendix 1 in the original guideline document) including lymphoma
- Patients for whom there is a discrepancy between the clinical diagnosis and histopathology report

The Role of the LSMDT

The LSMDT should:

- Provide a rapid diagnostic and treatment service, ideally in the same clinical session.
- Identify and manage all patients with skin cancer in secondary care except those who require referral to the SSMDT (see table above titled "Patients for review by SSMDTs").
- Be responsible for the provision of information, advice and support for all patients and their carers throughout the course of the illness; this should include those who are receiving most of their care from doctors outside the MDT (e.g. physicians caring for the elderly).
- Provide treatment and follow-up for patients and ensure that every patient with invasive skin cancer is documented (discussed or audited) by the MDT.
- Audit the management of all patients with excised BCCs and SCCs not discussed at MDT meetings. This audit should be presented to the MDT on a quarterly basis.
- Provide a rapid referral service to the SSMDT for patients who require specialist management (see table above titled "Patients for review by SSMDTs").
- Ensure that GPs are given prompt and full information about any changes in their patients' illness or treatment.
- Refer cases requiring a second histological opinion to the lead histopathologist in the SSMDT.
- Ensure that all eligible patients are entered into approved clinical trials. If the trial is coordinated through the SSMDT then all patients (regardless of stage) who are eligible should be referred to the SSMDT.
- Collect data for network-wide audit (see table below, titled "Example of activities in a rolling programme of audit").

Table. Example of Activities in a Rolling Programme of Audit

• Audit of all skin cancers to be presented annually, including those not discussed at the MDT • Audit of all skin cancer excision margins according to published guidelines • Waiting times according to national targets (see section on "Cancer waiting time targets" in the original guideline document) • Proportion of cases actually reviewed by the MDT according to criteria listed • Critical incidents where treatments were judged to be outside recommended network guidelines – network meetings should take place annually to review such incidents • Audit of histopathology reporting times • Audit of Mohs surgery activity • Audit of clinical trial entry

Cases to be discussed at LSMDTs are summarised in the table above, titled "Patients to be referred for LSMDT review." LSMDTs will concurrently refer certain patients on to the SSMDT (see table above, titled "Patients for review by SSMDTs").

Any patients who are recognised (clinically or histologically) to have skin cancers with the characteristics listed in the table above titled "Patients for review by SSMDTs" should be referred directly to the SSMDT.

In some cases, direct referral from the community to the SSMDT may be appropriate, for example in the rare situation where a GP finds that he or she has excised an MM. However, there may be benefits to a patient in being referred simultaneously to both LSMDT and SSMDT and meeting a member of the LSMDT early, because follow-up may take place there at a later date.

A function of the LSMDT is to audit management and in particular to ensure that wider/re-excisions have been adequately performed. As with BCC/SCC audits, this should be presented quarterly to the MDT. The LSMDT should also receive quarterly audit data from any clinicians working in the community (see table above, titled "Example of activities in a rolling programme of audit").

Core Membership of the LSMDT

The LSMDT should include the following.

- *Designated lead clinician*. A designated lead clinician (normally a consultant dermatologist) who will take overall responsibility for the service.
- *Dermatologists*. There should be a designated lead and ideally a deputy lead, both with a special interest in skin cancer, and any dermatologist involved in skin cancer care should attend the MDT meeting.
- *Skin cancer clinical nurse specialists (CNSs)* (as defined by the Manual of Cancer Services). Patient advocacy and provision of information and support for patients and carers are crucial aspects of this role. The CNS will play a key role in communication between the patients and the different specialties involved in management and must have a high level of communication skills. She or he should be able to provide practical support such as advice postoperatively. The CNS will also have an important role in the identification of patients' psychosocial needs and will advise on appropriate referral. The CNS may, if suitably trained, carry out a range of related service activities such as minor surgery, skin cancer surveillance and follow-up clinics in parallel with an appropriately trained doctor.
- *Histopathologists*. Histopathologists should take a lead role in skin cancer. Pathology reports should include all the information required by the current Royal College of Pathologists minimum dataset for the relevant cancer. The histopathologists engaged in skin cancer diagnosis should participate in an appropriate external quality assessment (EQA) scheme and demonstrate evidence of continuing professional development (CPD) relevant to skin cancer. The lead histopathologist should attend over 50% of MDT meetings. Other histopathologists reporting skin cancer should be able to demonstrate some MDT activity.
- *General practitioners with special interest (GPwSIs), trust clinical assistants and associate specialists*. Doctors regularly engaged in seeing skin cancer patients or undertaking skin cancer surgery should be encouraged to attend the skin cancer MDT as part of their contracted activities, and this should be recognised where appropriate for continuing medical education (CME). Their attendance should be a minimum of four times a year, which should include

one audit meeting where patients with skin cancer who are not formally reviewed at MDT meetings are discussed.

- *Surgeons*. Surgeons who regularly perform excisional surgery should attend the MDT meeting and be designated within the trust as having a specialist interest in skin cancer.
- *Oncologists*. Not every LSMDT will have a clinical or medical oncologist available, but if local circumstances allow they should be part of the LSMDT.
- *Team coordinator/secretary*. A team coordinator/secretary should be appointed who will provide clerical support for the MDT. All decisions made by the team should be recorded and appropriate information properly communicated to those that require it. The attendance of all members of the MDT should also be recorded.
- For each of the specialties described above there should be a nominated lead and deputy.

Members of the Extended LSMDT

The LSMDT should maintain close contact with all other professionals who are actively involved in treating and supporting patients. The extended team may include:

- Specialists in palliative care
- Trained counsellors with experience in cancer
- Psychologists
- Cosmetic camouflage advisers
- Clinical geneticist/genetics counsellor
- Occupational therapists
- Prosthetics and orthotics staff
- Physiotherapists
- Lymphoedema therapists
- Pharmacists

The Specialist Skin Cancer Multidisciplinary Team (SSMDT)

Patients with invasive skin cancer associated with a greater risk or rarity should be managed by SSMDTs. These teams should be established in larger hospitals, usually cancer centres, plastic surgery centres or other specialist tertiary services of relevance to skin cancer and should provide a service for a minimum population of 750,000. These teams can also serve as the LSMDT for the local population. The teams should include appropriate non-surgical oncology support.

Specific cases for referral to the SSMDT are set out in the table above titled "Patients for review by SSMDTs ". Where patients meeting criteria for SSMDT are identified by dermatologists that attend LSMDTs, review at the LSMDT may take place on the basis that referral to the SSMDT is immediate and should not be dependent upon the LSMDT review.

If two or more SSMDTs are established in one cancer network, there should be strong links between them. These SSMDTs should establish common clinical protocols across the network as a whole, and for the audit of all aspects of their work. Each team should appoint a lead clinician who will take an active role in the coordination of skin cancer services provided by the network as a whole.

If patients attend the SSMDT they should be seen in a combined or parallel clinic staffed by the core members of the SSMDT (see "The Role of the SSMDT" below). The history, histology and radiology of those patients who attend the SSMDT should also be presented at the review meeting.

Patients with lymphoma and other rare skin cancers (see section on "Management of special groups" below) should be dealt with by only one SSMDT in the network. All cases should be reviewed by the dermatopathologist designated by the network to have an interest in, and lead responsibility for, cutaneous lymphoma reporting. It is appropriate for the network lead dermatopathologist in lymphoma reporting to attend the clinics as necessary. The lead dermatopathologist in lymphoma reporting is likely to be, but is not necessarily, the SSMDT lead dermatopathologist.

The NICE guidance on *Improving Outcomes in Haematological Cancers* permits considerable flexibility for the type and number of lymphoma/leukaemia MDTs. Multidisciplinary primary cutaneous lymphoma clinics have developed in several networks and have been highly successful. In particular this model facilitates patient examination and clinicopathological correlation, which is often essential for the accurate diagnosis of cutaneous lymphoma. These multidisciplinary clinics can be encouraged to continue and develop, depending on appropriate geography and case numbers. With appropriate core membership these could achieve MDT status, but should formally feed back summaries to the SSMDT.

The Role of the SSMDT

The SSMDT will also act as the LSMDT for their local catchment population. They should, in addition, review other specific groups of patients (see table above titled "Patients for review by SSMDTs"); these will be referred in from other LSMDTs according to network protocols.

SSMDT meetings should be at least fortnightly. The key roles of the SSMDT over and above that of an LSMDT are to:

- Provide a rapid diagnostic and treatment service (ideally at the same clinical session) for patients referred from LSMDTs.
- Provide specialist investigations and treatments not available to LSMDTs.
- Undertake research including entering patients into National Cancer Research Network (NCRN)- and Wales Cancer Trials Network (WCTN)-approved clinical trials. Wherever possible patients should be considered for clinical trials (e.g. adjuvant therapies or surgical treatments). Where trials are adopted for surgical procedures on lymph nodes, these patients should be referred and coordinated by the SSMDT.
- Collect data for network-wide audit (see table below, titled "Example of activities in a rolling programme of audit").
- Play a lead role in Mohs surgery activity within the cancer network.
- Play a lead role in training and teaching health professionals about skin cancer.

The SSMDT should have access to intensive care unit (ITU) or high-dependency facilities for major surgical cases (for example, widespread tumours affecting the head and neck). It should maintain close contact with other professionals who

may be involved in supporting patients or carrying out the management strategy decided by the team, so that rapid access to their services can be provided when required.

All cases referred to the SSMDT should receive formal diagnostic histopathological review. There may be a few exceptions; for example, cases referred with extensive BCC for surgical reconstruction. All cases requiring a tertiary histopathological opinion should be supported by the SSMDT on a commissioning basis.

Patients reviewed by the SSMDT should be seen by and referred from the LSMDT in most instances, unless the SSMDT is also the LSMDT. However, in order to avoid undue delays some patients may be referred directly from doctors working in the community.

As set out in the section on "Arrangements for skin cancer teams," patients with skin cancer occurring on the head and neck may be managed locally by head and neck cancer specialist MDTs and centres. These patients may be reviewed as appropriate by the SSMDT. There should be clear management arrangements and links between the SSMDT and other cancer site-specific MDTs.

Core Membership of the SSMDT

The SSMDT should include the following:

- *Dermatologists*. There should be at least two dermatologists, one of whom should have a major interest in skin cancer and/or skin cancer surgery; another should ideally have a major interest in cutaneous lymphoma. There should be a designated lead and ideally a deputy lead, and any dermatologist involved in skin cancer care should attend the MDT meeting.
- *Surgeons*. At least two surgeons should have a designated interest in skin cancer surgery and perform at least 15 block dissections each (groin or axilla) per year. Radical or conservative neck dissections (for cancer of the head and neck) should only be done by specialists regularly undertaking this procedure or who are members of the head and neck cancer MDT. A combination could include plastic surgeons, surgical oncologists, oral and maxillofacial surgeons, oculoplastic surgeons and ear, nose and throat (ENT) surgeons. It may be appropriate locally to include as extended team members oculoplastic surgeons and reconstructive hand surgeons. Oculoplastic surgeons have a specific and important role in the management of skin cancers arising around the eye.
- *Skin cancer CNSs* (as defined by the Department of Health (2004) *Manual of Cancer Services*. Available from: www.dh.gov.uk). Patient advocacy and provision of information and support for patients and carers are crucial aspects of this role. The CNS will play a key role in communication between the patients and the different specialties involved in management and must have a high level of communication skills. She or he should be able to provide practical support such as advice postoperatively. The CNS will also have an important role in the identification of patients' psychosocial needs and will advise on appropriate referral. The CNS may, if suitably trained, carry out a range of related service activities such as minor surgery, skin cancer

surveillance and follow-up clinics in parallel with an appropriately trained doctor.

- *Histopathologists*. Ideally there should be at least two specialist dermatopathologists or histopathologists with a special interest in dermatopathology. This is to provide flexibility and adequate cover during leave periods. There should be a designated lead in the area and ideally a deputy lead. The lead and deputy lead engaged in reviewing and reporting SSMDT skin cancer cases should each attend over 50% of SSMDTs. Other histopathologists reviewing and reporting SSMDT work should be able to demonstrate some MDT activity. All specialist histopathologists reviewing and reporting common and rare skin cancers should be able to demonstrate experience, competency and skills sufficient to fulfil the task, or undertake appropriate training to acquire the skills. The level of competence and skills for this activity is broadly that of the RCPath Diploma in Dermatopathology and American Board Certification in Dermatopathology. These qualifications are not, however, regarded as mandatory. All specialist histopathologists engaged in this work should participate in some continuing professional development (CPD) relevant to common and rare skin cancers and participate in an appropriate EQA scheme. Ideally this should be a national specialist EQA scheme in dermatopathology, when available. Those reporting primary cutaneous lymphoma must participate in an EQA scheme including this group of diseases. It is also desirable that the CPD is facilitated by membership of appropriate national societies (such as the British Society for Dermatopathology and/or the UK Cutaneous Lymphoma Group). Each cancer or pathology network could hold a panel of histopathologists suitable for SSMDT participation based on these criteria.

  Histopathologists restricting their activity in the SSMDT centre to work at the LSMDT level should be able to demonstrate the same activity as defined previously. It is acknowledged that because of workforce shortages in histopathology there could be an implementation delay of these goals in some centres.

- *Radiologists*. Cross-sectional imaging is important for staging new cases and managing advanced cases. Sessional time must be identified to allow the radiologists to prepare for and attend the MDT meeting.
- *Clinical oncologists*. A designated clinical oncologist should be identified as a member of the SSMDT and should be present in both the clinic and MDT review meeting.
- *Medical oncologist*. A designated medical oncologist should be identified as a member of the SSMDT and should be present in both the clinic and MDT review meeting.
- *Palliative care specialists*. Since the management of complex invasive skin cancers (particularly metastatic MM) is often palliative, a palliative care specialist (either a doctor or a nurse) should be included in the core team. Patients with specialist palliative care needs should also be referred to the appropriate community palliative care services.
- *Team coordinator/secretary*. A team coordinator/secretary should provide clerical support, record meetings and ensure that all documentation required to inform MDT discussion is available at each meeting.
- For each of the specialties described above there should be a nominated lead and deputy.

Members of the Extended SSMDT

The core members and those in the list below form the extended multidisciplinary team that meets at least once a year to decide and discuss local issues of service delivery and quality. The trust cancer services managers should attend such meetings.

The extended SSMDT may include:

- Trained counsellors with experience in cancer
- Psychologists
- Liaison psychiatrists
- Pharmacists
- Cosmetic camouflage service advisers
- Clinical geneticist/genetic counsellors
- Lymphoedema therapists
- Occupational therapists
- Prosthetics and orthotics staff
- Physiotherapists
- Radiographers
- Speech and language therapists

Commissioning arrangements should be made by the cancer network for the funding of histopathology reviews from the LSMDT to the SSMDT, and by the cancer network for funding supranetwork pathology referrals from the SSMDT for tertiary opinions in difficult diagnostic cases.

Organisation of LSMDT and SSMDT Meetings

The core LSMDT and SSMDT should meet at least every 2 weeks. The MDT should assume responsibility for all cases of skin cancer referred to them. All team members should attend the majority of meetings and should participate in collaborative decision-making, although different criteria apply to GPwSIs. At least once a year the LSMDT and SSMDT extended teams should meet with their core teams to discuss team and organisational issues with a designated trust manager.

Decisions about management and standards for therapy should follow documented clinical protocols that have been agreed throughout the network. These protocols should be demonstrably evidence-based and should be produced jointly by members of all the teams in the network that deal with skin cancer. Patients who fit the criteria for inclusion should be asked if they would like to participate in NRCN- and WCTN-recommended clinical trials.

Medical photography has an important role in the recording of clinical images for skin lesions and should be used where appropriate to aid decision-making at MDT meetings.

One member of the LSMDT/SSMDT (usually the lead clinician) should take managerial responsibility for the service as a whole. Audit of process and outcomes, and actions arising from audit results, should be discussed in team meetings (see table above titled "Example of activities in a rolling programme of

audit"). Data collection systems should be compatible across pathology departments and all skin cancer teams to facilitate network-wide audit.

Meetings should be arranged by the team secretary/coordinator, who should ensure that information necessary for effective team functioning is available at each meeting. This will include a list of patients to discuss and copies of their case notes, along with diagnostic staging and pathology information.

Preparation and attendance at meetings should be recognised as a clinical commitment, and time should be allocated accordingly and reflected in consultant job plans. Team members should be adequately prepared for each meeting, so that cases can be discussed without delay. The team should elect a lead clinician who takes managerial responsibility and represents the team on the skin cancer network site-specific group.

Videoconferencing and teleconferencing should be considered to facilitate the holding of MDT meetings, especially in geographically dispersed areas and where time is a severe constraint.

All new cases should be discussed as well as those that have subsequent events following initial assessment and treatment. Straightforward cases treated to agreed national and local protocols may need very little discussion, but should be included.

Audit, clinical trials and other issues of relevance to the network should also be discussed at MDT meetings.

Clinicians Working in the Community

As described in the Background chapter (see the original guideline document), precancerous lesions of the skin and skin cancers are extremely common. Therefore, all GPs will be expected to recognise and make management decisions on patients with these conditions on a regular basis. This guidance recommends that while precancerous lesions can be safely managed by any GP who has undergone appropriate training (as outlined in the National Guideline Clearinghouse [NGC] summary of the NICE Referral Guidelines for Suspected Cancer in Adults and Children), the planned treatment of low-risk BCCs should be restricted to approved doctors working in the community, usually a GPwSI (as described in this section in the original guideline document), or the LSMDT/SSMDT. All other skin cancers should be referred to the LSMDT in the first instance.

In some areas, there may be suitably trained doctors who work in specialist hospital departments and who wish to see and treat patients with precancerous skin lesions and low-risk BCCs in the community. The need for community skin cancer clinics will vary according to the expertise available and ease of access to local hospital departments – they may well be more appropriate in rural areas than in urban areas. All doctors and specialist nurses working in the community who knowingly treat skin cancer patients should be approved by, and be accountable to, the local LSMDT/SSMDT skin cancer lead clinician. They should work closely together to agreed local clinical protocols for referral, treatment and

follow-up. These should be coherent with network-wide clinical protocols and signed off by the network site-specific lead for skin cancer.

Depending on local circumstance, community skin cancer clinics could be based in GPs' surgeries, community hospitals or diagnostic and treatment centres where these exist. Patients could be referred to these clinics by local GPs or members of the LSMDT/SSMDT. For instance, when a diagnosis of low-risk BCC is made in a dermatology clinic, the patient may prefer the surgery to be carried out in the community if the specialist agrees this to be appropriate. Patients could be seen by these teams for treatment and follow-up when appropriate, according to agreed protocols and patient choice (see Box below and Figure 14 in the original guideline document for details of the patient pathway for different types of skin lesions).

Any doctor or specialist nurse who wishes to treat patients with skin cancer should have specialist training in skin cancer work, be a member of the LSMDT and undergo ongoing education (see section on "Structure and Clinical Governance"). In the absence of a national body to determine the surgical training within the remit of skin cancer, this should be determined by the network site-specific group for skin cancer and be consistent with the NGC summary of the NICE Referral Guidelines for Suspected Cancer in Adults and Children. All doctors participating in the MDT should have a letter of appointment from the MDT lead clinician. Ideally all doctors treating patients with skin cancer should have attended a recognized skin surgical course. They should also work at least one session per week as a clinical assistant, hospital practitioner, associate specialist or staff-grade doctor in the local hospital department. This should be in a parallel clinic with an appropriate hospital specialist, normally a dermatologist, who is a member of the LSMDT/SSMDT. This applies to GPwSIs as well, as specified in the joint recommendations by the Department of Health (DH), Royal College of General Practitioners (RCGP) and the British Association of Dermatologists (BAD). This is considered essential to maintain skills and promote dialogue with the specialist.

A basic knowledge of skin cancer histopathology reporting and terminology is expected. Eligible doctors should either be GPwSIs employed by the primary care trust (PCT) /local health board (LHB) or non-career-grade doctors employed by the hospital trust. PCTs and LHBs should only accredit GPwSIs for skin cancer work if they comply completely with the DH, RCGP and BAD guidelines on GPwSI working. The recommendations include the need for the GPwSI to work at least one session per week in the special interest area. The majority of the practitioner's time should be spent as a GP, and this is usually considered to be at least three sessions per week.

Skin cancer CNSs should work alongside the doctors and carry out some forms of treatment such as cryotherapy, skin surgery and photodynamic therapy. They would also be involved in counselling, health promotion and follow-up of selected groups of patients where appropriately trained and would also ensure that the necessary liaison occurs between the hospital and community-based care. Any doctor, nurse or other practitioner who carries out surgical procedures on skin cancer patients should be appropriately trained and have his or her work audited and appraised.

The Role of the Doctor Working in the Community

The doctor working in the community should:

- Manage and follow up, when indicated, patients with low-risk BCCs and precancerous lesions in the community (see the Box below titled "Clinical guidelines for primary care on the management of skin cancer and precancerous lesions" and Figure 14 in the original guideline document) by working to agreed protocols as defined by the lead clinician of the LSMDT/SSMDT.
- Provide a rapid referral service for patients who require specialist management through the LSMDT or SSMDT.
- Be responsible for the provision of information, advice and support for patients managed in primary care and their carers.
- Maintain a register of all patients treated, whose care should be part of a regular audit presented to the LSMDT/SSMDT.
- Liaise and communicate with all members of the skin cancer site-specific network group.
- Ensure that referring GPs are given prompt and full information about their patients' diagnosis or treatment in line with national standards on communication to GPs of cancer diagnoses.
- Collect data for network-wide audit

Management of Patients Presenting in Primary Care

The NGC summary of the NICE Referral Guidelines for Suspected Cancer in Adults and Children recommendations for skin cancer should be followed. These primarily relate to referral to a specialist in secondary care from a non-specialist GP.

Clinical guidelines have been published by the BAD and National Institute for Health and Clinical Excellence (NICE) for management of non-melanoma skin cancer (NMSC) and by the BAD, British Association of Plastic Surgeons, Melanoma Study Group and NICE for the management of MM. The recommendations for management of specific tumour types in primary care are summarised in Figure 14 in the "Initial Investigation, Diagnosis, Staging and Management" chapter of the original guideline document and are consistent with these clinical guidelines. These clinical guidelines have also been included within the Evidence Review.

Structure and Clinical Governance

All clinicians who see and plan to treat patients with skin cancer in the community should be approved by, and be accountable to, the LSMDT lead clinician, and work to agreed protocols.

The work carried out should be audited on a regular basis and staff and resources made available for this. The LSMDT/SSMDT should be responsible for how these audits are organised and carried out. All doctors and nurses should have regular CPD and would be expected to attend the LSMDT/SSMDT meetings whenever one of their patients is being discussed, and at least four times a year. In addition, meetings to discuss audit results, guidelines and cancer measures should be arranged twice a year and all team members should attend these at least once year.

Box. Clinical guidelines for primary care on the management of skin cancer and precancerous lesions (see definitions of types of lesion in "Glossary of terms," Appendix 6 in the original guideline document)

1. **Patients with pigmented skin lesions**

   Patients who present to their GP with pigmented skin lesions need careful assessment with a full history and examination of the skin lesion being recorded. If the lesion is thought to be benign the patient may be reassured; however, it is strongly recommended that all such patients should be provided with both oral and written information regarding the changes that may subsequently suggest malignant transformation and instructed to return if any such changes occur or if the lesion continues to concern the patient. If there is any doubt about the lesion, or if there is a history of recent change, the patient should be referred urgently to a specialist who is a member of the LSMDT/SSMDT for further assessment (see below).

2. **Patients with lesions suspicious of melanoma or SCC**

   All patients, where there is a possibility of a melanoma or an SCC of the skin, should be referred urgently (consistent with national targets and the NGC summary of the NICE Referral Guidelines for Suspected Cancer in Adults and Children– see "Patient-Centred Care" section above), to a specialist who is a member of the LSMDT/SSMDT, usually to the local dermatology department rapid access skin cancer clinic or pigmented lesion clinic. Ideally these should be 'one-stop' diagnostic and treatment clinics (i.e. where a diagnosis is made and treatment given in the same clinical session). In some areas such clinics are arranged by plastic surgery units. If a GP or a doctor working in the community who belongs to an LSMDT/SSMDT takes an excisional or incisional biopsy of a lesion that is reported as a melanoma or SCC, the patient should be referred urgently to a specialist who is a member of the hospital LSMDT/SSMDT.

3. **Patients with BCC**

   Where a patient has a lesion that may be a low-risk BCC, he or she may be referred either to the local hospital specialist who is a member of the LSMDT/SSMDT, normally a dermatologist, or to a doctor working in the community who is a member of an LSMDT/SSMDT. Those with recurrent and high-risk lesions should be treated by a hospital specialist who is a member of the LSMDT/SSMDT. If the referring GP is uncertain whether or not the lesion is a high- or low-risk BCC, the patient should be referred to a hospital specialist. Patients with BCCs are excluded from current cancer target times in England. However, the Welsh Cancer Standards for skin cancer suggest that patients should not wait more than 5 months from receipt of the GP referral letter at the hospital before starting their definitive treatment. Waiting time targets in England for all outpatient appointments will mean that from 2007 no patient will wait more than 18 weeks before being seen. Improvements in waiting time are desirable.

4. **Patients with precancerous skin lesions**

   Precancerous skin lesions such as actinic/solar keratoses or in situ SCC of the skin (Bowen's disease) are common, and the GP may treat these using one of the recognised treatments (e.g. cryotherapy, topical drug treatments, curettage and cautery). The patient may also be referred to a doctor working in the community who is a member of an LSMDT/SSMDT or the local dermatology department. If the lesions are hypertrophic or inflamed or if there is any other reason to suspect that they may have developed into an SCC, the patient should be referred to a dermatologist who belongs to the LSMDT/SSMDT.

5. **Uncertain diagnosis**

   If the GP is uncertain of the diagnosis the patient should be referred for further assessment to a dermatologist who is a member of an LSMDT/SSMDT.

Investigation and Diagnosis

GPs should receive training as recommended in the NGC summary of the NICE Referral Guidelines for Suspected Cancer in Adults and Children on the diagnosis of precancerous and cancerous lesions, and should receive feedback through audit on their diagnostic accuracy.

GPs should refer certain groups of skin lesions as described in the Box above titled "Clinical guidelines for primary care on the management of skin cancer and precancerous lesions" and Figure 14 in the original guideline document directly to an LSMDT without biopsy. This practice should be subject to audit.

All excised skin specimens should be sent for histopathological examination as recommended in the NGC summary of the NICE Referral Guidelines for Suspected Cancer.

Dermatoscopy should be available in all MDTs, but its use requires training.

There should be equity of access so that all tissue samples are reviewed in high-quality histopathology services. Accurate diagnosis in dermatopathology depends on clinicopathological correlation, involving input from both clinician and pathologist. Although this can be achieved in difficult cases by interspecialist discussion or seeing the patient records, in some instances (such as cutaneous lymphoma) it may be essential for the patient to be seen jointly. Accordingly, for good clinical governance, it is recommended that the histopathology reporting of any specimens likely to be considered by a skin cancer MDT should be undertaken in a laboratory having easy access to relevant clinicians, patient records and the attending patient.

Histopathology services for skin cancer should be part of a managed pathology network or equivalent model.

Histopathology reporting should be provided by histopathologists who participate in EQA. This may be a general histopathology EQA scheme that includes skin or a

more specialist skin EQA scheme. When appropriate, the EQA scheme should cover lymphoma. Given the overlap with head and neck cancer services, it should be noted that the head and neck histopathology EQA scheme includes skin cases.

All histopathology reports relating to skin cancer should conform to the Royal College of Pathologists minimum datasets on cancer in order to provide adequate and appropriate information on prognosis, planning individual patient treatment, supporting epidemiology and research, and to evaluate clinical services and support clinical governance.

Sentinel node biopsy (SNB) samples for skin cancer should be examined and reported by specialists with a registered qualification in histopathology. It is desirable that SNB samples resulting from skin cancer are handled and reported by the same team of pathologists involved in the reporting of skin cancer. The technical processing of SNB samples must conform to recognised national or international protocols (such as that used by the European Organisation for Research and Treatment of Cancer (EORTC).

All MMs and severely atypical naevi should be double-reported if resources allow the report to be generated within 2 weeks. The acknowledged current shortfall of an National Health Service (NHS) histopathology workforce in some centres could delay this quality recommendation. Although it is ideal that all melanocytic lesions are double-reported to avoid missing MM, it is likely to be many years before the NHS histopathology workforce could achieve this.

Given an adequate histopathology workforce in the medium to long term, it is desirable that eventually all skin cancers are double reported to achieve consistency and accuracy in diagnosis. It is also recognised that alternative models to double-reporting of MM exist, such as consensus meetings outwith the MDT. These are equally acceptable so long as all potential MDT cases are discussed and the meetings formally minuted with regard to attendance and diagnosis.

All cases referred to the SSMDT should have a specialist histopathology review.

An appropriately resourced national system for histopathology tertiary review should be established. Currently, several thousand complex and/or rare skin cancer cases per year require tertiary opinions from a small number of informally recognised national expert specialist dermatopathologists. Even with the formation of larger pathology networks, the complexity of these cases indicates that this tertiary referral practice will continue to be necessary to obtain the correct diagnosis and thereby maximise the quality of patient treatment and care. All SSMDT cases falling into this category should have full access to this tertiary referral facility when supported by the SSMDT. Commissioners should be aware of the funding implications. These services, which may cross many network boundaries, should be commissioned through the specialised services commissioners.

MDTs should complete the national cancer datasets for common skin cancers and for lymphoma.

Management of Precancerous Lesions

Where there is any doubt about the diagnosis, the patient should be referred for a specialist opinion as described in see the Box above titled " Clinical guidelines for primary care on the management of skin cancer and precancerous lesions" and Figure 14 in the original guideline document. All excised skin specimens should be sent for histopathological examinations as recommended in the NGC summary of the NICE Referral Guidelines for Suspected Cancer in Adults and Children.

Patients with two or more atypical naevi, and giant congenital naevi where there is a suspicion of malignant transformation, and who need assessment and education should be referred to a member of the LSMDT or SSMDT (see "Organisation of Skin Cancer Services" and the tables above titled "Patients to be referred for LSMDT review" and "Patients for review by SSMDTs").

Medical photography has a special role to play in surveillance for patients with atypical naevi. Therefore all departments treating skin cancer should have access to high-quality medical photography and storage of digital images.

Any doctor or nurse who knowingly treats patients with precancerous lesions should have received locally approved training in available treatments.

Patients with anogenital Bowen's disease (including penile and vulval) should be referred to relevant specialist centres, and this may include referral to a urologist, gynaecologist or coloproctologist, depending upon local expertise.

Any patient with a lesion suspected of being lentigo maligna needs to be referred to and managed by a hospital-based member of an LSMDT/SSMDT.

All treatments identified in this chapter for the treatment of precancerous lesions should be available for use by clinicians in all of the teams, subject to locally agreed standards of competence.

Management of Skin Cancers

All excised skin specimens should be sent for histopathological examinations as recommended in the NGC summary of the NICE Referral Guidelines for Suspected Cancer in Adults and Children.

Only doctors and nurses who have received locally approved training and who are active members of a skin cancer MDT should carry out surgery for skin cancers. Scar placement and management should be considered before surgery.

Mohs surgery should be available in each cancer network and only carried out by those who have received training approved by the lead clinician of the skin cancer site-specific network group.

Patients should be given information and be involved in decision making, as set out in the "Patient-Centred Care" section above.

SNB should only be undertaken in centres where there is clinical experience of the procedure and normally only within the context of ethics-committee-approved

clinical trials. However, in order to maintain their already established expertise, centres may continue to offer SNB between trials.

Chemotherapy should be available for the management of skin cancer patients where appropriate.

Adjuvant alfa interferon treatment should only be given as part of a clinical trial.

Treatments using surgery and carbon dioxide laser techniques should be available at regional centres via SSMDTs, but isolated limb perfusion (ILP) and isolated limb infusion (ILI) would only be required at supraregional centres.

Vaccine therapy for advanced MM remains uncertain and its use should only be in the context of a clinical trial.

Before non-surgical treatment, a tissue sample for confirmation of the diagnosis should usually be obtained.

Histopathology services should be adequately staffed and resourced to cope with the potential increase in skin biopsies resulting from the recommendations in this guidance. Commissioners should note, however, that acknowledged current workforce shortages could delay this implementation.

NHS histopathologists in England and Wales must work in laboratories that are seeking or have accreditation with Clinical Pathology Accreditation Ltd.

All cancer networks should have easy access to appropriate immunophenotypic, molecular biological and cytogenetic facilities. Some of the latter are very specialised pathology services and may not be provided by pathology laboratories within the LSMDT or SSMDT. Cancer networks should identify one or more clinical oncologists and medical oncologists with responsibility for the radiotherapy and systemic treatment of patients with skin cancer.

Radiotherapy departments should have the appropriate equipment including orthovoltage radiotherapy machines for the management of patients with skin cancer.

All treatments identified in this chapter for the treatment of skin cancer should be available for use by clinicians in all of the teams, subject to locally agreed standards of competence.

Follow-up

Cancer networks should develop locally agreed protocols for follow-up of each skin cancer type, taking into account national guidelines, the risks of local recurrence, metastatic spread and new primary lesions.

Follow-up for patients after treatment for skin cancer should be tailored, as much as possible, to the individual, taking into account the patient's needs and wishes. Options and decisions regarding follow-up should be made jointly with the patient.

All patients should be given both oral and written information about the different types of skin cancer and instruction about self-surveillance. All patients should be given written instruction on how to obtain quick and easy access back to see a member of the LSMDT/SSMDT when necessary. GPs should be given advice about local arrangements for patients to re-access skin cancer services.

Follow-up arrangements may include a combination of self-surveillance, GP or other community doctor, and specialist nurse or hospital specialist clinic.

Some patients, such as those who are immunocompromised or who have a genetic predisposition to the development of skin cancers (e.g. Gorlin's syndrome, xeroderma pigmentosum), may need lifelong surveillance (see "Management of Special Groups" section below).

Positron emission tomography (PET) scanning is not routinely recommended for follow-up; however, it may be useful for a small number of patients with suspected recurrent disease when clinical doubt remains after other forms of imaging. PET scanning should therefore be available on a supraregional basis for these patients.

Basal Cell Carcinoma and Squamous Cell Carcinoma

Patients with BCCs or SCCs, with a low risk of recurrence, do not need long-term surveillance and should be discharged from formal follow-up, but should be given information and instruction as recommended above.

Patients who are at high risk of recurrent or metachronous cancer or who find self-examination difficult require formal follow-up. The period of time and frequency will depend on the degree of risk, which should be discussed with the patient. This may be particularly important for patients with high-risk SCCs, because of the more serious implications of locoregional recurrence.

Melanoma

Patients with in situ MM do not require follow-up, but should be given information and instruction as recommended above.

Patients with invasive MM should have a period of formal follow-up, the frequency and duration of which depends on the risk of metastatic spread and which should take into account the patient's psychological and emotional needs. Detailed recommendations for patients are made in the BAD guidelines for MM.

Patients who have had multiple primaries or those with a family history of MM require long-term follow-up, sometimes lifelong.

Management of Special Groups

Generic Recommendations For Patients With Uncommon Risk Factors or Rare Cancers

Specialised services commissioners, together with their cancer network(s), should undertake a needs assessment for these special groups of patients, plan the provision of appropriate specialist care and put in place the necessary commissioning arrangements.

Network-wide protocols should be developed that describe the pathways of care for these special groups of skin cancer patients.

Commissioners should receive results of audits of the care of these special groups. Commissioning for national specialised pathology services for rare skin tumours should be reviewed by the specialised services commissioners.

There should be good liaison between the SSMDT and the haemato-oncology MDT. Specifically, systemic/nodal lymphomas presenting in the skin should have haemato-oncology MDT review. Likewise, primary cutaneous lymphoma presenting to, for example, haematologists should receive SSMDT review.

There should be a close liaison between the SSMDT and the soft tissue sarcoma MDT. It is appropriate for many cutaneous sarcomas to be considered by the SSMDT but some should also be discussed at the sarcoma MDT, especially those that penetrate the superficial fascia or require chemotherapy.

Information provision for patients in these special groups should be tailored to their specific needs and contain information on their condition and relevant patient support groups. Links should be made to national support groups, to assure the quality of information (see "Patient-Centred Care" above).

Treatment strategies for individual patients should be made and developed in the context of MDT meetings at which all relevant clinical specialists, including a CNS who knows the patient, should be present.

All patients with a high risk of developing skin cancer should be counselled effectively by a dermatologist or a CNS about sun protection before they develop any skin lesions, and should have annual checks carried out thereafter.

All patients in high-risk groups with precancerous skin lesions (e.g. multiple warty lesions and/or actinic keratoses [AK]) should be referred early to a dermatologist for assessment, active treatment and follow-up.

Once patients at high risk start to develop skin lesions they should be offered at least 6-monthly follow-up.

Genetic Predisposition

Patients with evidence of genetic predisposition and their families should be offered referral to the clinical genetics services or a specialist dermatology service. The criteria for referral for families with MM are:

- Three or more family members with MM
- Two first-degree relatives with MM
- Two relatives with MM, one of whom had multiple primaries

Patients with familial MM, Gorlin's syndrome or XP should be reviewed by SSMDTs and be managed by dermatologists and surgeons who have expertise in these conditions.

Patients with Gorlin's syndrome should not be treated with radiotherapy.

Transplant Patients

Transplant patients who have precancerous skin lesions or who have developed a skin cancer should be seen in a dedicated 'transplant patient skin clinic', either in the transplant centre or in a hospital closer to the patient's home, according to the choice of the patient.

Close links should be established between the transplant centre, local physician and dermatologist for the management of transplant patients postoperatively.

Dermatologists managing transplant recipients with multiple and/or recurrent skin cancers need to liaise with the transplant team regarding reduction of immunosuppression and the use of systemic retinoids in order to reduce the risk of invasive disease.

Cutaneous Lymphoma

All patients should be seen by and managed by the SSMDT, which should include a dermatopathologist with expertise in cutaneous lymphoma (NICE guidance on *Improving Outcomes in Haematological Cancers*). Close liaison should be maintained with a haemato-oncopathologist, as appropriate. Cases of possible systemic haematological malignancy involving the skin should be referred to the appropriate haematological malignancy MDT.

LSMDTs should be involved once the diagnosis and staging has been confirmed by the SSMDT.

Patients with lymphomatoid papulosis or stage Ia mycosis fungoides could be managed locally by the LSMDT after diagnosis.

Patients with rare types of cutaneous lymphoma and those with later stages of mycosis fungoides (stage IIb or above) should be seen in and have easy access to supranetwork centres for specialist advice and access to treatment facilities. There should be a small number of such centres nationally and they would not be present in every cancer network.

These supraregional services should be commissioned under regional specialised commissioning so that the expertise can be concentrated where the treatment facilities are available and so that tertiary referral centres can undertake clinical studies based on a meaningful number of patients.

All lymphoma patients should undergo diagnostic biopsies for histology, immunophenotyping and molecular studies, and this should be correlated with clinical presentation for accurate diagnosis and prognosis.

The SSMDT should have access to specialist laboratory testing of tumour tissue and blood for immunophenotyping, molecular analysis and blood viral serology.

Initial staging imaging is required in all patients with the exception of stage 1 mycosis fungoides and lymphomatoid papulosis.

The SSMDT should have access to bone marrow aspirate and trephine biopsies for complete staging of all patients with B- and NK-cell lymphomas and for patients with cutaneous T-cell lymphoma (CTCL) variants and late stages of mycosis fungoides (stage IIb or above).

The World Health Organization (WHO)–EORTC primary cutaneous lymphoma classification should be used to classify primary cutaneous lymphomas.

Chemotherapy should be reserved for patients with advanced disease as it may have a detrimental effect on those with early disease.

Skin Sarcomas

Skin cancer MDTs should liaise with sarcoma MDTs in the management of patients with cutaneous sarcomas. As stated in the section on SSMDTs, it is essential for all cutaneous sarcomas to receive specialist histopathology review.

Sarcomas needing SSMDT review include all those involving the dermis and subcutaneous fat above the superficial fascia. It is appropriate for small/superficial cutaneous sarcomas to be dealt with by the SSMDT.

It is essential that there is close liaison between the SSMDT and sarcoma MDTs. This is particularly important for patients whose sarcomas are large or penetrate the superficial fascia or are of a histological type requiring chemotherapy (e.g. rhabdomyosarcoma, Ewing's sarcoma).

Patients with Kaposi's sarcoma should be referred to experts in the management of this tumour.

Children and Young People

All children and young people diagnosed with skin cancer should be managed within the context of an MDT, which will include a dermatologist expert in skin malignancies and have access to specialist children and young people cancer support services and inpatient facilities at network level (see NGC summary of the NICE service guidance Improving Outcomes in Children and Young People with Cancer).

Children and young people with skin cancer should be given the opportunity of entering into National Cancer Research Institute-(NCRI)-approved clinical trials, as recommended in the NGC summary of the NICE service guidance Improving Outcomes in Children and Young People with Cancer.

CLINICAL ALGORITHM(S)

A clinical algorithm titled "Skin lesion – patient pathway" is provided in the original guideline document.

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting each section of the guidance is specifically stated in the companion titled *Improving Outcomes for people with skin tumors including melanoma. The evidence review* (see the "Availability of Companion Documents" field in this summary).

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

In general, the guidance may lead to important changes in the structure and organisation of care for patients with skin cancer and will lead to genuine improvement in the outcomes.

Refer to the original guideline document for anticipated benefits upon implementation of guidelines under the following topics:

- Patterns of Service Provision
- Patient-Centred Care
- Organisation of Skin Cancer Services
- Initial Investigation, Diagnosis, Staging, and Management
- Follow-up
- Management of Special Groups

POTENTIAL HARMS

Not stated

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

The Measurement sections of the guidance list "structures," "processes," and outcomes" directly related to the recommendations and suggest ways in which implementation of guidance can be measured. The topics may feed into any peer review process, may be subjects for regular or ad hoc clinical audit, or be the subject of other forms of assessment such as patient surveys. Resource implications are also provided for each section of "The Care Pathway."

IMPLEMENTATION TOOLS

Audit Criteria/Indicators
Clinical Algorithm
Patient Resources

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

End of Life Care
Getting Better
Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

National Collaborating Centre for Cancer. Guidance on cancer services: improving outcomes for people with skin tumours including melanoma. London (UK): National Institute for Health and Clinical Excellence (NICE); 2006 Feb. 174 p. [32 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

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GUIDELINE DEVELOPER(S)

National Collaborating Centre for Cancer - National Government Agency [Non-U.S.]

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National Institute for Health and Clinical Excellence (NICE)

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Guidance Development Group

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

All guideline development group (GDG) members made and updated any declarations of interest.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) format from the National Institute for Health and Clinical Excellence (NICE) Web site.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- National Collaborating Centre for Cancer. Guideline Development Methods: Information for National Collaborating Centres and Guideline Developers. London (UK): National Institute for Health and Clinical Excellence (NICE); 2005 Feb. 89 p. Electronic copies: Available from the National Institute for Health and Clinical Excellence (NICE) Web site.
- National Collaborating Centre for Cancer. Improving outcomes for people with skin tumours including melanoma. The evidence review. London (UK): National Institute for Health and Clinical Excellence (NICE); 2006 Feb. 584 p.

Electronic copies: Available from the National Institute for Health and Clinical Excellence (NICE) Web site.

- National Collaborating Centre for Cancer. Improving outcomes for people with skin tumours including melanoma. Analysis of the potential economic impact of the guidance. London (UK): National Institute for Health and Clinical Excellence (NICE); 2006 Feb. 62 p. Electronic copies: Available from the National Institute for Health and Clinical Excellence (NICE) Web site.

PATIENT RESOURCES

The following is available:

- Healthcare services for skin tumours including melanoma. Understanding NICE guidance – information for people with skin tumours, their families and carers, and the public. National Institute for Health and Clinical Excellence (NICE), 2006 Feb. 4 p.

Electronic copies: Available in Portable Document Format (PDF) from the National Institute for Health and Clinical Excellence (NICE) Web site.

Print copies: Available from the National Health Service (NHS), 11 Strand, London, WC2N 5HR. Response Line 0870 1555 455, ref N0958.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC STATUS

This summary was completed by ECRI on November 17, 2006. The information was verified by the guideline developer on December 21, 2006.

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